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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/667,546	09/22/2003	David W. Knoepfel	COS-865	9927

7590

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EXAMINER
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PASTERCZYK, JAMES W

ART UNIT	PAPER NUMBER
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1755

DATE MAILED: 04/23/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No. 10/667,546	Applicant(s) KNOEPPEL ET AL.	
	Examiner J. Pasterczyk	Art Unit 1755	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 22 September 2003.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-36 is/are pending in the application.
- 4a) Of the above claim(s) 29-36 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-28 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☒ Claim(s) 1-36 are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>9/22/03</u> . | 6) <input type="checkbox"/> Other: _____  |

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1. This Office action is in response to the IDS filed 9/22/03.

2. The examiner notes that the claims as originally presented omitted a claim 5. Hence, under Rule 126 the claims originally numbered 6-37 have been renumbered 5-36 respectively.

These numbers will be used henceforth by the examiner; applicants are requested to renumber their own copies of the claims accordingly, including the dependency within the claims, and use these new numbers throughout prosecution of the present case.

3. Restriction to one of the following inventions is required under 35 U.S.C. 121:

I. Claims 1-28, drawn to catalysts and methods of making them, classified in class 502, subclass 110 inter alia.

II. Claims 29-34, drawn to a polymer, classified in class 525, subclass various depending on the catalyst used to make it.

III. Claim 35, drawn to an article of manufacture made using the polymer of group II, classified in class 428, subclass various depending on the particular article made.

IV. Claim 36, drawn to a process for controlling polyolefin polymer particle size, classified in class 526, subclass various depending on the particulars of the catalyst used in the process.

4. The inventions are distinct, each from the other because:

Inventions I and II are related as process of making and process of using the product.

The use as claimed cannot be practiced with a materially different product. Since the product is not allowable, restriction is proper between said method of making and method of using. The product claim will be examined along with the elected invention (MPEP § 806.05(i)).

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Inventions I and III are unrelated. Inventions are unrelated if it can be shown that they are not disclosed as capable of use together and they have different modes of operation, different functions, or different effects (MPEP § 806.04, MPEP § 808.01). In the instant case the different inventions have different functions, the former to make a catalyst, the latter to serve as a structural material.

Inventions I and IV are related as product and process of use. The inventions can be shown to be distinct if either or both of the following can be shown: (1) the process for using the product as claimed can be practiced with another materially different product or (2) the product as claimed can be used in a materially different process of using that product (MPEP § 806.05(h)). In the instant case the process for using the product as claimed can be practiced with another materially different product, such as a metallocene catalyst in which the feed includes hydrogen.

Inventions II and III are related as mutually exclusive species in an intermediate-final product relationship. Distinctness is proven for claims in this relationship if the intermediate product is useful to make other than the final product (MPEP § 806.04(b), 3rd paragraph), and the species are patentably distinct (MPEP § 806.04(h)). In the instant case, the intermediate product is deemed to be useful as a liner for otherwise porous containers, and the inventions are deemed patentably distinct since there is nothing on this record to show them to be obvious variants. Should applicant traverse on the ground that the species are not patentably distinct, applicant should submit evidence or identify such evidence now of record showing the species to be obvious variants or clearly admit on the record that this is the case. In either instance, if the

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examiner finds one of the inventions anticipated by the prior art, the evidence or admission may be used in a rejection under 35 U.S.C. 103(a) of the other invention.

Inventions IV and II are related as process of making and product made. The inventions are distinct if either or both of the following can be shown: (1) that the process as claimed can be used to make other and materially different product or (2) that the product as claimed can be made by another and materially different process (MPEP § 806.05(f)). In the instant case the product as claimed can be made by another and materially different process, such as using a metallocene catalyst.

Inventions III and IV are unrelated. Inventions are unrelated if it can be shown that they are not disclosed as capable of use together and they have different modes of operation, different functions, or different effects (MPEP § 806.04, MPEP § 808.01). In the instant case the different inventions have different functions, the former to contain materials or act as clothing or decorative fabric, the latter to make polyolefin particles having a particular particle size.

5. Because these inventions are distinct for the reasons given above and have acquired a separate status in the art as shown by their different classification, restriction for examination purposes as indicated is proper.

6. During a telephone conversation with David Alexander, Esq., on 3/30/04, a provisional election was made with traverse to prosecute the invention of group I, claims 1-28. Affirmation of this election must be made by applicant in replying to this Office action. Claims 29-36 are withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

7. Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

8. The specification is objected to because the ancestor cases noted in the first paragraph have all been allowed and issued, and that information along with the US patent numbers and issue dates should be included in the specification.

9. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

10. Claims 24-28 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-52 of U.S. Patent No. 6,174,971. Although the conflicting claims are not identical, they are not patentably distinct from each other because the extra titanation step of the present claims would have been conventional to the routineer in the art to include.

11. Claims 1-23 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 53-97 of U.S. Patent No. 6,174,971. Although the conflicting claims are not identical, they are not patentably distinct from each other because the additional titanation step of the present claims would have been conventional to the routineer in the art.

12. Claims 1-23 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 31-57 of U.S. Patent No. 6,486,274. Although the conflicting claims are not identical, they are not patentably distinct from each other because the additional titanation step of the present claims would have been conventional to the routineer in the art.

13. Claims 24-28 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-30 of U.S. Patent No. 6,486,274. Although the conflicting claims are not identical, they are not patentably distinct from each other because the additional titanation step of the present claims would have been conventional to the routineer in the art.

14. Claims 24-28 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-32 of U.S. Patent No. 6,693,058. Although



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the conflicting claims are not identical, they are not patentably distinct from each other because the additional titanation step of the present claims would have been conventional to the routineer in the art.

15. Claims 1-23 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 33-59 of U.S. Patent No. 6,693,058.

Although the conflicting claims are not identical, they are not patentably distinct from each other because the additional titanation step of the present claims would have been conventional to the routineer in the art.

16. Claims 1-28 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 1, l. 4 requires "alkyls" (plural). It is not clear whether only plural alkyls as opposed to a single aluminum alkyl will achieve the recited effect.

In claim 3, l. 1 recites a "solution", yet the next three clauses recite process steps; this is a non sequitur.

In claim 5, l. 12-13, "reaction comprising a magnesium alkyl" is a non sequitur since the claim is to a process and processes are comprised of steps, not physical entities. It is also not clear if in l. 12 "a reaction product" is intended as opposed to --the reaction product--. In l. 14 change "may be" to --are-- for definiteness. Line 16 recites an aluminum alkyl, yet l. 17 recites that one of the R"" groups is an alkoxide, which is inconsistent. It is also not clear what the rest of the R"" groups are since only one need be what is recited. In l. 18 change "may be" to --is--.



In claim 6 it is not clear if the ratio recited is in the product or of the reagents added in the process step.

In claim 7, steps do not comprise physical entities, they comprise manipulations. Better language would be --the process of claim 5 wherein the halogenating/titanating agents of steps c) and d) comprise titanium tetrachloride--. Again it is not clear if the ratio recited is of the reagents used in the step or that found in some particular intermediate or product.

In claim 8 delete "a" since the magnesium compound recited is a specie, barring isomers of the hexyl group.

In claim 12, when the "first halogenating/titanating agent" is a blend of two titanium compounds, one of which is an alkoxide or phenoxide, this implies that the agent is either a halogenating agent or a titanating agent but not both simultaneously. This appears to contradict or at least clarify the meaning of the term "halogenating/titanating agent" in independent claim 5; is this true? In 1. 2 it is not clear if "two tetra-substituted titanium compounds" requires they be different as claim 13 appears to do.

Claim 15 is also a non sequitur since the "reaction further comprises" the electron donor.

In claim 16 it is not clear if the recited ratio is of reagents used in a step or of some product made in this or another step.

In claim 18 use of the same symbol R'" for two different moieties makes it unclear which definition is to be applied here. Also, A cannot be a compound, though it may be an element or a moiety since a compound is itself a whole entity.

It is not clear how the titanium content of the wash in claim 20 is to be measured or how the washing is to be carried out. Is the washing a continuous process, for instance in a Soxhlet

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extractor? A single wash with a given aliquot of solvent? Plural washes with the same aliquot of solvent, or plural washes each with a fresh aliquot of solvent? The number would appear to be dependent on the method of washing chosen.

In claim 21 it is not clear whether the ratio refers to the amount of reagents in a process step or to some product made.

In claim 24, the symbol R" is used in the claim for two different things with different meanings; this is inherently vague and indefinite. In l. 14-15, "reaction comprising a magnesium alkyl" is a non sequitur since reactions cannot comprise physical entities but only steps. In l. 14 it is not clear if "a reaction product" shouldn't be --the reaction product--. In l. 18-19 reciting the aluminum compound as an alkyl, then saying one of the R'" groups may be an alkoxide is inconsistent; it is also not clear what the other R'" groups are since the identity of only one is specified. In l. 20 change "may be" to --is--.

In claim 25 it is not clear if the R variable has the same definition as that found for the a variable of the same name in claim 24, given that dependent claims take all the limitations of their superior claims.


In claim 28 it is not clear if the ratio refers to the finished product or to the amounts of reagents used in a process step leading up to the finished product.

17. The present claims appear to be allowable over the prior art of record. The single reference that appears to be closest to the present invention is Gessell et al., USP 4,387,200; however, this reference lacks the addition of an aluminum alkyl to the magnesium alkyl/alcohol reaction mixture, as well as more than two titanation steps.


18. Any inquiry concerning this communication or earlier communications from the examiner should be directed to J. Pasterczyk whose telephone number is 571-272-1375. The examiner can normally be reached on M-F from 9 to 5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mark Bell, can be reached at 571-272-1362. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



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4/8/04